



# Maine Stream Team Program NEWS



Networking, Education, and Stewardship

Volume 6 Issue 2

Spring 2006

## Outstanding Projects of 2005

Greetings, stream teams and river advocates! We recently completed our second annual survey of stream team leaders, and were blown away by the number of individuals and groups in the state acting as stewards for our streams and rivers. You are all doing amazing work, and we thank you for sharing your struggles and successes with us!

One source of confusion for several of the survey participants was how the Maine Stream Team Program (MSTP) fits in with their existing organizations. The work that happens on streams throughout the state depends on the collaboration of many partners, from conservation commissions and land trusts to school groups and various watershed organizations. Though groups may be registered stream teams, often the work they do is independent of our direct support.

We at the MSTP enjoy providing guidance, networking opportunities, training and other assistance on your projects wherever possible. But we want to make sure we are highlighting *all* of your successes (not just those in which we had a hand), in the interest of facilitating a sharing of ideas. This is the power of being involved in the TEAM effort of protecting streams and rivers in the state of Maine.

Without further ado, here are the results of our survey, including a selection of outstanding projects demonstrating the creativity and hard work of various teams around the state. (There are too many projects statewide to fit in this one article.) We hope you will each find new ideas to take back to your groups.

### Litter Cleanups

One great way to get community members involved and aware of their local watershed is to host a litter cleanup. The Josias River Cleanup Team in Ogunquit hosted its annual cleanup for the Ogunquit River, dunes and beach. This past year, they had over 40 participants, including conservation commission members, the Ogunquit Highway Department, and other volunteers.

The Brunswick Conservation Commission also benefited from partnering on their big cleanup project this year. They involved high school students, college students from Bowdoin College, and had assistance from the Brunswick Parks and Recreation Department.



*Participants in the Spruce Creek watershed survey pose after a generous lunch provided by Bob's Clam Hut.*

### Watershed Surveys

A watershed survey gets volunteers walking the entire watershed of a stream, inventorying potential non-point source (NPS) pollution problems. This past year, the Spruce Creek Association in Kittery organized a watershed survey that included the participation of over 50 volunteers, from landowners, conservation commissions members, land trust and conservation organization partners, and several local businesses. All told, the group surveyed along 45 miles worth of tributaries to Spruce Creek.

The benefit of involving community members in watershed surveys is great. Not only do you raise awareness of your projects, but you also create an army of educated locals who will continue to watch out for problems in the watershed long after the survey is done. This has been the experience of the Sunday River Stream Team (Bethel, Newry, Riley Twp). Com-

*(Continued on next page)*

### INSIDE THIS ISSUE

Outstanding Projects of 2005	1
Integrating Streams and Schools	Insert
Grant Opportunities	Insert
Follow up: Groundwater in Maine	5
Announcements	6
Calendar Items	7
Contact Us	8

## Outstanding Projects of 2005, cont.

munity members incorporate informal surveys into the course of their daily commute and exercise routines, and have raised the alarm when they found something amiss.

For information on organizing a watershed survey, please contact the Maine Stream Team Program (contact info on the back page of this newsletter) or your local Soil & Water Conservation District (SWCD).



*Volunteers conduct a stream habitat survey on Bond Brook in Augusta.*

### **Stream Habitat Surveys**

The Maine DEP and Dept. of Inland Fisheries and Wildlife have collaborated to create a rapid stream habitat survey and rapid geomorphic assessment protocol. This survey, easily performed by volunteers with one day of training, is a fantastic screening tool to assess the overall health of a stream.

This year a number of groups participated in stream surveys, including the Damariscotta Lake Watershed Association of Jefferson (with members of a local summer camp) and Trout Unlimited-Sebago Chapter (with various Wells area community volunteers). The Marine Environmental Research Institute of Blue Hill conducts one survey per year, rotating the location to cover the watershed.

Unlike recent years, this year the Maine Stream Team program will be holding general trainings for the Rapid Stream Habitat Survey & Rapid Geomorphic Assessment in different parts of the state. We encourage any groups interested in participating in stream habitat surveying this year to attend one of these training sessions. For details on the times and places of these trainings, please see the calendar section of this newsletter on page 7.

### **Non-Point Source Pollution Reduction**

One benefit of completing basic surveys of your stream and watershed is that it generates information on specific sites that would benefit from pollution reduction or preventative action (also known as Best Management Practices, or BMPs). Before a project of this sort is completed, many preliminary steps are taken. These include:

- ◆ Planning and conducting the initial survey;
- ◆ Cataloguing and prioritizing the problem sites identified through the survey;
- ◆ Fundraising and applying for various types of grant moneys to work on BMP projects; and
- ◆ Planning the BMP project.

While we are only highlighting a few BMP projects that have been completed, we wish to acknowledge the hard work that many groups are doing in order to reach that point.

One popular BMP is to plant a buffer. A "buffer" is a wide ribbon of trees, shrubs, and plants alongside a waterway. It helps absorb polluted runoff before it reaches the stream, and helps keep the water cool. Several groups this year reported successful buffer planting projects.

Mount Desert Island Water Quality Coalition had great success working with 8<sup>th</sup> grade students in Bar Harbor. The students built a fence, installed a swale (another type of BMP), and planted vegetation alongside Eddie Brook, near their school. They then watched the swale do its job, preventing sediments on the playground from reaching the stream during a two-day, 11-inch rainstorm in October.



*Middle school students from Bar Harbor (left) and high school students from Washington Academy (right) work on buffer plantings.*

The Machias Stream Team of Machias has been working with high school students from the Washington Academy who have raised plants, helped pot them, and then participated in planting them in sensitive buffer areas. On an upcoming project, they will be involved in collecting small trees from less sensitive areas, in some cases raising them up, and transplanting them to more sensitive regions.

Among many successes this year, the Machias Stream Team also commissioned an ATV bridge to be built over prime salmon habitat. The team has been working closely with local ATV clubs (and other partners) to inspect their own trail systems, identify problems, and collaborate to find solutions. All told, the

*(Continued on next page)*



## Outstanding Projects of 2005, cont.



*New BMPs on Machias Stream in 2005. Left: an ATV bridge prevents erosion on the banks. Right: a new, bottomless arch culvert allows for more natural flow conditions at a road crossing.*

partnership is protecting over 1000 miles of existing trails, and has prevented an estimated 3000 tons of sediment from entering the stream.

### Public education and awareness

A number of groups organized stream events and workshops in 2005. The Androscoggin River Watershed Council organized its 11<sup>th</sup> annual canoe trek, a journey from the source (Umbagog Lake, ME), through NH and back into ME, and finally to the sea (Phippsburg, ME) in twenty single-day segments. Some participants came for the entire trek; many came just for a small portion. Each day, as they paddled a new segment of the river, experts and leaders from organizations interested in the Androscoggin River shared their expertise with the participants.

The Presumpscot River Watershed Coalition (of Cumberland County) similarly organized a tour of the Presumpscot River by bus. They invited local decision makers, press, and leaders from organizations involved in the watershed. They drove almost the full length of the river over the course of the afternoon, stopping at key places where guest speakers presented different issues affecting the river. The tour generated several articles in local papers.

For the Machias Stream Team, road maintenance is an important issue affecting non-point source pollution in their watershed. They hosted a workshop on grading roads, and invited all the local forest landowners. Several DEP certified road graders attended the workshop, demonstrating proper grading techniques to the participants. Subsequent follow-up has shown a marked improvement in the condition in the roads, which in turn helps to improve the condition of the stream.

The Great Works River Watershed Coalition hosted a community forum in North Berwick, with a total of 50 people participating. Around a dozen people representing various watershed organization partners had an opportunity to present some of the "Great Work"

that has already been done in the watershed. The remainder of the participants were citizens in the watershed. The forum gave the participants an opportunity to identify and voice their concerns about important issues in the watershed, and also to brainstorm some unique solutions to these problems.

Another method for educating the public is to create stationary educational materials in places where people frequently go. For example, the Presumpscot River Watershed Coalition created stream-crossing signs for six important tributaries to the Presumpscot, which are helping to raise awareness of the connection between various water bodies in the watershed.

Several groups, including the Spruce Creek Association and Mt. Desert Island Water Quality Coalition, have helped organize storm drain stenciling projects with kids. Students walk the streets of the watershed and stencil messages next to each storm drain. These messages remind individuals that storm drains are connected to other water bodies, and that we should avoid dumping hazardous materials in them.

The Saco Middle School ecology club is taking these ideas to the next level, creating a one-mile trail along a stream on school property. Along with the trail itself, they are producing a self-guided tour booklet, which visitors may borrow. The club advisor, David Shaw, plans to consult with a number of experts in fields ranging from forestry to geology to incorporate all of these views into the final tour booklet (which, along with the trail, should be completed this school year). To supplement the natural features highlighted in the tour, students from Saco Middle School have also crafted plywood animal cutouts, true to life in both size and color. These will be displayed along the trail for larger events, such as group tours which the club plans to organize for younger students (see insert).

On the technological side, a number of teams and organizations sponsoring teams maintain websites for the public. They provide information on streams, ongoing projects in the watershed, collected data, and ways to get involved. Some examples include the Spruce Creek Association < [www.sprucecreekassoc.com](http://www.sprucecreekassoc.com) > of Kittery and the Stetson Brook Team < [www.geocities.com/stetsonbrookteam](http://www.geocities.com/stetsonbrookteam) > of Lewiston.

### Monitoring

The most commonly reported activity in which stream teams around the state participate is water quality monitoring. Many of the teams

*(Continued on next page)*



*A new stream crossing sign on a tributary to the Presumpscot River*

## **Outstanding Projects of 2005, cont.**

surveyed are establishing baseline water quality values through monitoring efforts. For example, the Sheepscot Valley Conservation Association of Newcastle has just completed its 12<sup>th</sup> year of water quality monitoring at 30 different sites, in an effort to establish a 15-year baseline. Once a baseline is established, they plan to reevaluate and target the most important sites for continued monitoring.

Alternatively, some groups are targeting their monitoring to problem spots or restoration sites. The Machias Stream Team has conducted monitoring on streams both before and after completing non-point source pollution restoration projects, such as replacing an undersized culvert with a bottomless arch culvert 3 times the original size. The group has observed a decrease in sedimentation, and an increase in brook trout spawning at the sites where restoration work has been completed. With water quality monitoring, they were able to scientifically demonstrate improved water quality to stream reaches, with a decrease in total suspended solids and (in some cases) lower temperature associated with the restoration work. This data will be very useful as they apply for grants for future restoration projects.

Teams rely on different segments of the watershed population to complete the sampling. Several groups rely on volunteers to take meter readings and collect samples. The Bagaduce Watershed Association (Hancock County) sends several teams of volunteers out during the field season to collect water quality data on six different streams. The Maine Environmental Research Institute hires several interns who conduct weekly monitoring over the course of the summer. The Salmon Recovery Stream Team relies on students from Central High School in Corinth to conduct monitoring on Kenduskeag Stream.

The groups measure an assortment of parameters, using a variety of methods. The most frequently measured parameters include temperature, dissolved oxygen, pH, conductivity and bacteria. The most unusual water quality study completed was perhaps the optical brightener study Mount Desert Island Water Quality Coalition conducted with local eighth grade students (see insert).

### **Flora and Fauna**

Intrinsically linked to the health of rivers and streams is the assemblage of plants and animals found in the channel and riparian zone. A number of groups are monitoring and addressing problems in species assemblages. On the flora side, the 15 Mile Stream Team of Unity has been monitoring and removing Purple Loosestrife (a terrestrial invasive species associ-

ated with wetlands).

The Bagaduce Watershed Association has continued to be involved with the Maine Department of Transportation in transplanting beds of eelgrass (a native aquatic species which has been dwindling in recent years) on the Bagaduce River.

On the fauna side, many groups are participating in macroinvertebrate sampling and/or monitoring of some sort. Macroinvertebrates are critters that lack a backbone, but which can be seen with the naked eye. These include a wide variety of aquatic insects, mollusks, and crustaceans, and can be indicators of stream health. They are also an effective way to engage students and the public to look beneath the surface waters of a stream.

Many groups, such as the Sheepscot Valley Conservation Association (SVCA) of Newcastle, incorporated informal macroinvertebrate sampling into existing activities, whether with classroom work or water quality monitoring or stream surveying.

Several groups are even monitoring various vertebrates. Last year, the Stetson Brook Team participated in Frogwatch USA, a volunteer amphibian monitoring program sponsored by the US Geological Survey and the US Wildlife Federation. For more information, see < [www.nwf.org/frogwatchUSA/](http://www.nwf.org/frogwatchUSA/) >.

The Saco River Salmon Hatchery Team of Saco stocked over 600,000 Atlantic salmon fry throughout the Saco River watershed. They did some water quality monitoring associated with the releases, deploying temperature data loggers at five of the stocking sites. Several important partners involved in this project include the Maine Atlantic Salmon Commission and the National Marine Fisheries Service.

### **Land Acquisition**

Finally, one of the most important ways of protecting rivers and streams is through conservation easements and acquiring land with critical riparian zone (streamside) habitat. The Josias River Cleanup Team has worked to acquire a little more than an acre of land alongside the Josias River in the downtown area, creating a "pocket park." This effort was helped by local taxpayers, who were given the opportunity through a mailing to donate money or land to support Ogunquit's Open Space Program. Similar land acquisition projects have occurred in other parts of the state.

In conclusion, we thank those of you who participated in this survey. Your work has rippled outwards and inspired us to think in new ways about what is possible for streams in the State of Maine.



## Integrating Streams with Schools



*Students from the Saco Middle School Ecology Club place leaf packs in Deep Brook, as the first step involved in one method of sampling stream macroinvertebrates.*

Several of the teams that participated in our annual survey deserve special notice for their success in integrating diverse stream and watershed conservation practices into the classroom.

Ruth MacLean, a teacher at King Middle School in Portland, has developed creative ways to engage her students in real-world stream science. This past year her students collected water quality data (including pH, dissolved oxygen and temperature) at four sites all along Capisic Stream. The students submitted their data to the Vital Signs website, maintained by the Gulf of Maine Research Institute.

Each student was responsible for analyzing the data collected. They wrote reports, including both the history of pollution to the stream as well as suggestions for what could be done to improve the health of the stream. The work, which they presented to the Portland City Planner, was also videotaped and is currently being shown on a local television channel.

Meanwhile, Saco Middle School's Ecology Club, spearheaded by teacher David Shaw, has adopted Deep Brook, the stream that runs through their school property. They have participated in some water quality monitoring, and plan to do some macroinvertebrate sampling as well. Last June, they organized a storm drain stenciling event with great success, receiving good media coverage for their efforts. They hope to incorporate all aspects of what they are learning about the stream into the self-guided trail which they are developing on their stream. They also plan to teach what they have learned to younger students.

David Shaw's unique efforts on behalf of the environment recently earned him the Jensen Award for environmental contributions in the City of Saco. Likewise, the Saco Middle School Ecology Club was recognized by the City of Saco for their great efforts.

Finally, the Mount Desert Island Water Quality Coalition (MDIWQC) has worked closely with local schools to help integrate environmental education into the curriculum. Four schools on Mount Desert Island (MDI) participate in red tide monitoring projects as a

part of an integrated 7th or 8th grade science curriculum. Each month, around a hundred students collect data and enter it into the online database which the MDIWQC maintains. Later they have the opportunity to meet to analyze the results.

Together with the MDIWQC, 8th graders from the Town of Mt. Desert designed an optical brightener study. Optical brighteners are chemicals found in laundry detergents, and are associated with septic systems, and hence *E. coli* bacteria. By tracing the presence or absence of optical brighteners, you can potentially pinpoint the source of bacteria pollution.

The students were responsible for creating "cages" which hold pieces of unbleached cotton that are then placed into the stream. If there are optical brighteners in the stream, they will accumulate on the cotton pad. These chemicals will fluoresce under black light in a lab. The students deployed their cages in Stanley Brook, which they knew to have a history of bacteria problems.

Even though the students did not detect optical brighteners in any of their samples, they learned about the strengths and limitations of optical brightener sampling. For example, any bacteria that came from a non-septic source (i.e. animals, etc.) would not have had any optical brighteners in it. Alternatively, their test may not have been sensitive enough to detect optical brighteners in low concentrations.

Each year since 2002, the MDIWQC has hosted the Hancock County Youth Watershed Forum. Over 50 students from seven schools attended in 2005. Students had the opportunity to present projects they had completed, from storm-drain stenciling to optical brightener and other water quality testing. They also had the chance to participate in activities like hands-on macroinvertebrate classification and holding a mock town meeting. In the future, the students who participate will also be responsible for planning the forum for the next year, preparing these students to be environmental advocates and leaders for the future.



*Students at the Hancock County Youth Watershed Forum present ideas for protecting water.*

## \$\$ Grant Opportunities \$\$

For more comprehensive results, we refer you to the **New England Environmental Finance Center Network Directory of Watershed Resources** at: < <http://efc.muskie.usm.maine.edu/tools.html> >. The Directory is a free, searchable database of environmental funding programs and other support. It provides up-to-date information on assistance available from federal and state government, private foundations, corporations and other organizations. The directory has just been updated to include nearly 300 programs with a New England focus, and includes over 320 national funding/assistance sources as well. Programs listed in the Directory support a wide range of environmental activities including watershed restoration, land conservation, capacity building and education. The Directory includes over 600 Federal, State and Private funding and assistance programs for which New England organizations are eligible to apply.

Funder	Region	Deadline(s)	Web Site
Jessie B. Cox Charitable Trust	New England	April 18, July 15, October 15	<a href="http://www.hembar.com/selectsrv/jbcox/cox.html">http://www.hembar.com/selectsrv/jbcox/cox.html</a>
Maine Natural Resources Conservation Service	Maine	April 28	<a href="http://www.me.nrcs.usda.gov/">http://www.me.nrcs.usda.gov/</a>
National Park Service Rivers & Trails Program (Maine Office)	Maine	August 1	<a href="http://www.nps.gov/ncrc/programs/rtca/contactus/regions/northeast.html">http://www.nps.gov/ncrc/programs/rtca/contactus/regions/northeast.html</a>
Wharton Trust	New England	September 15	<a href="http://www.williampwartontrust.org">http://www.williampwartontrust.org</a>
Davis Conservation Foundation	ME, NH, VT, MA	October 10	<a href="http://www.davisfoundations.org">http://www.davisfoundations.org</a>
Lowe's Outdoor Classroom Grants	Nationwide		<a href="http://www.lowes.com/lowes/lkn?action=pg&amp;p=AboutLowes/outdoor/index.html">http://www.lowes.com/lowes/lkn?action=pg&amp;p=AboutLowes/outdoor/index.html</a>

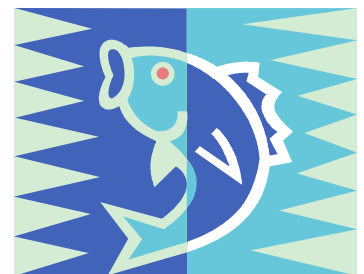
Another great resource is the River Advocates Fundraising Guide: A Handbook for River and Watershed Organizations. This online guide was created by River Network and can be found at < <http://www.rivernetwork.org/fundraisingguide/> >.

### 2005 Highlights from Maine DEP Stream and River Programs

Maine Department of Environmental Protection (DEP) biologists have been assisting local stream and river stewardship groups through the Maine Stream Team and Maine Salmon Rivers Programs. Some highlights from 2005 have included a number of trainings and completions of rapid stream habitat-geomorphology surveys performed using techniques crafted by the Maine DEP and the Maine Department of Inland Fisheries and Wildlife (MDIFW).

These surveys provide local citizen groups, watershed councils, soil & water conservation districts, town planning boards, and state agencies with preliminary data about the condition of stream and river habitats (including shoreland forest buffers and wetlands), non-point source pollution threats, and stream / river stability. Since there are over 33,000 miles of streams and rivers in Maine, and limited agency resources to survey these miles, these rapid surveys are an important first step towards identifying stream and river reaches that may need further investigation or application of best management conservation practices.

Examples of trainings/surveys that took place in 2005 include Depot Brook (Wells), Martin Stream (Turner), Bond Brook (Augusta), Libby Brook (Gray), Sandy Stream (Unity), Crooked River (Otisfield), and the Rangeley region. Partner organizations included the MDIFW, Maine chapters of Trout Unlimited and the Izaak Walton League of America, local soil & water conservation districts, watershed councils, schools (including Unity College), and the Wells National Estuarine Research Reserve. Maine DEP is currently working with MDIFW to update and revise guidance documents and training for 2006.



## **Follow-Up: Ground Water, Streams, and Hyporheic Zones in Maine**

The Maine Geological Survey suggested that we make some additional points regarding ground water, aquifer, stream, and hyporheic zone issues as they relate to the State of Maine. (Remember that hyporheic zones are areas beneath stream/river channels and floodplains where mixing of surface and ground water occurs.) The articles we wrote in the previous MSTP Newsletter (Volume 6/Issue 1 [2006-01]) were general and basic in nature and not specific to Maine's unique geologic characteristics.

Aquifers in Maine are generally not characterized as "layers", as is the case in many parts of the United States. In Maine, the unconsolidated glacial aquifers in sand and gravel deposits upon the solid bedrock have internal layering of materials that have different characteristics, but many of these deposits (eskers, ice-marginal deposits, etc.) are not really layers. ("Unconsolidated" refers to materials that are loosely arranged or un-cemented.)

Additionally, Maine aquifers are generally isolated bodies as opposed to broad units draping over the landscape. In other words, they typically are not hydrologically-connected to other aquifers over broad areas, as may be the case in other parts of the United States.

With respect to the interaction of waters between ground water, hyporheic, and surface water regions, we again wrote in a generic fashion, even using some examples from the western United States, where geological conditions are different from Maine. We did this to

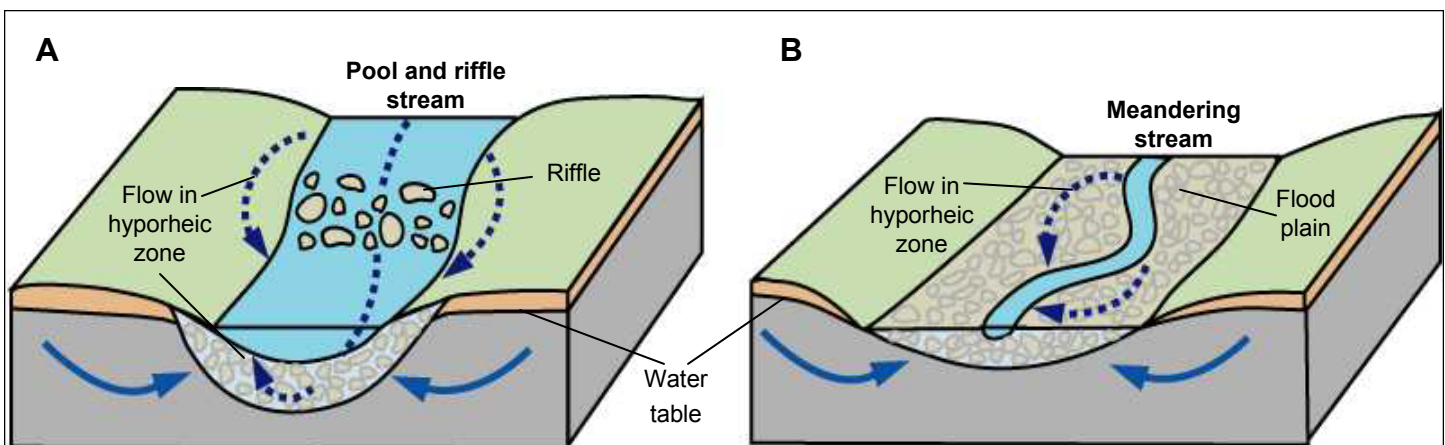
illustrate the potential importance of hyporheic zones to invertebrate animal and microbe communities, nutrient cycles/processes, and water pollution movement in Maine because there are still many unknowns here.

Still, it must be pointed out that it is likely that these regions are not nearly as extensive or large as have been found in other parts of the U. S. (i.e., up to 2 km away from the edge of river channels) due to local geological characteristics such as those described above.

Hyporheic flows are generally expected to be found in stream segments in Maine that flow through floodplains (and over channel bottoms) comprised of unconsolidated sediments and not in streams segments that are flowing directly over bedrock or solid clays.

Figure 1 illustrates both lateral and vertical interactions between streams and hyporheic zones (including both floodplain and sub-channel regions). In Maine, lateral interactions are probably more important than vertical ones, though both types of interactions may have significant ecological effects. (Note: In Figure 1, the "water table" is the level below which the soil or rock is saturated with water, sometimes referred to as the upper surface of the saturated zone.)

**References:** Winter, T. C., Harvey, J. W., Franke, O. L., and Alley, W. M., 1998, *Ground water and surface water - A single resource*, U.S. Geological Survey, Circular 1139, < <http://pubs.usgs.gov/circ/circ1139/> >.



**Figure 1.** Surface-water exchange with ground water in the hyporheic zone is associated with abrupt changes in streambed slope (i.e., transition from riffle to pool) (A) and with stream meanders (B). [Adapted from Winter et al. (1998).]



**Welcome New Stream Team!**

# 68

Waldo Westcott Stream Team







# Announcements



## Maine Damselfly and Dragonfly Survey

Insects in the order Odonata, damselflies and dragonflies, are a conspicuous and ecologically important component of Maine's natural heritage. Presently, 158 species have been confirmed in the state, several of which are of state and national conservation concern. Currently, the Maine Department of Inland Fisheries and Wildlife (MDIFW) lists the Ringed Boghaunter dragonfly as Endangered and the Pygmy Snaketail dragonfly as Threatened. While several odonates are sensitive to freshwater habitat degradation and experiencing declines nationwide, baseline information for the group has been lacking in Maine, until recently. In 1998, MDIFW received a grant from the Maine Outdoor Heritage Fund to initiate the Maine Damselfly and Dragonfly Survey (MDDS). Further support was received in 2000 from the U.S. Fish and Wildlife Service. The MDDS is among the first completely state-sponsored dragonfly atlas projects of its kind in North America. Having completed its final field season in 2004, the survey's results exceeded expectations and are summarized in a recently completed final report by Paul Brunelle and Phillip deMaynadier, project coordinators, posted as a PDF file on the website: < <http://mdds.umf.maine.edu/> >. Photographs of many of the species are included on the website. Some highlights from the project include:

### Outreach Contributions:

- Volunteer participation statewide: >200
- Volunteers trained in MDIFW seminars: 95
- Major press articles covering the project: 5
- Website hits: >18,000

### Scientific Contributions:

- Total records submitted: 17,264
- New state species records: 10
- New U.S. species records: 2
- Scientific publications completed/in progress: 5

## Website About Animal and Plant Species Distributions in Maine and the United States

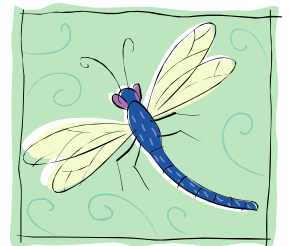
Visit < <http://www.npwr.usgs.gov/resource/geograph.htm> >, click on the state of Maine to find lists of birds and insects, including some that live in local streams and rivers, along with many photographs. Other types of animals and plants may be listed there in the future. This website is hosted by the U. S. Geological Survey.

## Now Available: A Local Guide to Help Planners Protect Small Streams and Brooks

For more information on the book entitled Incorporating Small Streams & Brooks into Developing Landscapes visit < [http://www.wellsreserve.org/news/2006-01-13\\_brooks.htm](http://www.wellsreserve.org/news/2006-01-13_brooks.htm) >.

## Narraguagus River Water Quality Monitoring Plan Now Available

To see the plan, visit the Project SHARE website at < <http://salmonhabitat.org/projects.htm> >.



## Signals of Global Climate Change Found in Eastern U.S. Rivers

Some recent press releases and related scientific publications have discussed signals of climate change found locally. Check out the following press releases entitled "Rivers Indicate Earlier Snowmelt in Eastern North America" (3/27/2006) and "Fewer Days of Ice on Northern New England Rivers in Recent Years" (11/7/2005) at their website < [http://www.usgs.gov/newsroom/article\\_archive.asp](http://www.usgs.gov/newsroom/article_archive.asp) >.

## Luna Leopold (famous river scientist) Passes Away At the Age of 90

Examples of Dr. Leopold's publications include "The Hydraulic Geometry of Stream Channels" and "Fluvial Processes in Geomorphology". For more information, visit < [http://www.usgs.gov/homepage/science\\_features/leopold.asp](http://www.usgs.gov/homepage/science_features/leopold.asp) >.

## Maine Non-Point Source Times Newsletter (Spring 2006) Available

Articles include: East Machias River Atlantic Salmon Habitat Improvement, MDEP Stream Watershed Survey Manual Under Development, Sheepscot River Online Data & Resources, Narraguagus River Water Quality Monitoring Plan, and Funding Opportunities. Find this newsletter online at < <http://www.maine.gov/dep/blwq/newslet/npstarchiv.htm> >.

## Stream Assessment and Restoration Learning Opportunities

To learn about some courses occurring in ME and NH, visit < <http://www.eaglehill.us/> > and < [http://www.field-geology.com/short\\_courses.htm](http://www.field-geology.com/short_courses.htm) >.

## USGS Report: Pesticides in the Nation's Streams and Ground Water, 1992-2001

Although typically absent from groundwater, pesticides are commonly found in streams in agricultural and urban areas throughout the year. The full report can be found at: < <http://pubs.usgs.gov/circ/2005/1291/> >.



## Calendar Items

### **Penobscot River Research Lecture Series**

SPRING, 2006. To learn more, visit < [http://www.umaine.edu/waterresearch/outreach/lecture\\_series.htm](http://www.umaine.edu/waterresearch/outreach/lecture_series.htm) >.

### **Conservation Expo**

APRIL 19, 2006. University of Maine at Farmington, Farmington, Maine. To register, or for more information, contact the Franklin County Soil & Water Conservation District at 778 - 4279.



### **Stream Habitat/Geomorphology Survey (Level 1) Training**

Survey your streams using methods developed by the Maine Dept. of Inland Fisheries & Wildlife and the Maine Stream Team Program. These surveys are intended to serve as a screening-level tool to help identify areas with possible high-value fisheries habitat as well as where habitat and pollution problems may exist and need follow-up work. No prior knowledge is needed. Pre-registration is required, but all trainings are free. For more information or to register, contact the MSTP (see back page for contact info). The following are dates available for groups and individuals to receive training on a Level 1 Stream Survey:

Date	Time	Location	Notes
April 22 & May 20	9:00 am—1:00 pm both days	Dixfield	This is a two-day training, and attendance is required on both dates.
June 17	9:00 am—2:00 pm	Belfast region	Details T.B.D. based on participants.
August 19	9:00 am—2:00 pm	Augusta	Details T.B.D. based on participants.
August 26	9:00 am—2:00 pm	York or Cumberland County	Details T.B.D. based on participants.

### **Workshop: Conserving Wildlife in Maine's Shoreland Habitats**

APRIL 24, 2006, 6:30—8:30 pm. Lakes Environmental Association, 230 Main Street, Bridgton. Learn about the wildlife habitat values of lands adjacent to lakes, streams, and wetlands and options for communities, landowners, and conservation groups to protect this important resource.

### **National River Rally 2006**

MAY 5-9, 2006. This national river conference will be held in Bretton Woods, NH. See < <http://www.rivernetwork.org/rally/> > for more details.

### **Maine Land Conservation Conference**

MAY 6, 2006. This conference will be held at Brunswick High School. Visit < <http://www.mltn.org> > for more information.

### **National Drinking Water Week**

MAY 7-13, 2006. For more information, visit < <http://www.awwa.org/advocacy/dww/> >.



### **Spring Running: A Festival to Celebrate the Kennebec River's Herring Revival**

MAY 20, 2006, 9:00 am—4:00 pm. Edwards Mill Park, Northern Avenue, Downtown Augusta. The Spring Running is a festival that celebrates and promotes the historic, cultural and economic connections of Augusta to the spring herring run. For more information, see < <http://www.springrunning.com> >.

### **Androscoggin River Watershed Council - Annual Conference**

JUNE 7, 2006. Details will be posted soon at < <http://www.avcnet.org/arwc/index.html> >.

### **Canoe Trek on the Androscoggin River**

JULY, 2006, VARIOUS DATES. Hosted by the Androscoggin River Watershed Council. Details will be posted soon at < <http://www.avcnet.org/arwc/index.html> >.

### **World Water Monitoring Day**

OCTOBER 18, 2006. For more information visit < <http://www.worldwatermonitoringday.org/> >.



Maine Stream Team Program  
c/o Maine DEP  
312 Canco Road  
Portland, Maine 04103

## How Do I Join the MSTP?

It's easy! First, choose a stream or stream segment. Next, obtain a "stream team registration form" by contacting us, or simply fill out the online registration form. After registering, you will receive some helpful information and begin to receive our periodic newsletter to help you stay up-to-date.

Membership to the program is free to any interested citizen, family, or organization. Once you have a "Team" and a stream, you're set! You can determine your stream's values and problems, and you can plan projects based on your assessments. You establish the course of events in protecting your stream. The Maine Stream Team Program will help you with ideas, advice, and informational materials.

### Contact The Maine Stream Team Program (MSTP):

**Mail:** Maine Stream Team Program, c/o Maine DEP, 312 Canco Road, Portland, ME 04103



**E-mail:** [mstp@maine.gov](mailto:mstp@maine.gov)

**Internet:** <http://www.maine.gov/dep/blwq/docstream/team/streamteam.htm>

**Phone:** (888)769-1036 (toll free – ask for the Maine Stream Team Program); (207)822-6317 [Jeff Varrichione, Portland, coordinator]; (207)822-6331 [Erin Crowley, Portland, Americorps volunteer]; (207) 287-7729 [Mary-Ellen Dennis, Augusta]; (207)941-4566 [Mark Whiting, Bangor]

